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Chemical issues in the Global Biodiversity Framework

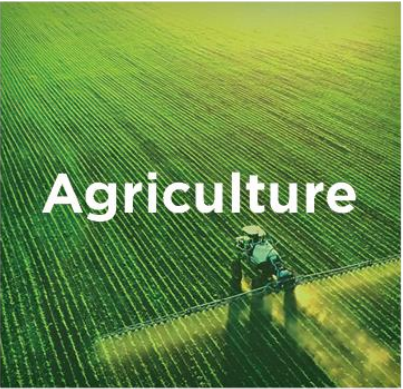**Tim Greiner, Managing Director**

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The planet is experiencing a dangerous decline in nature. One million species are threatened with extinction, soils are turning infertile, and water sources are drying up. The Global Biodiversity Framework – adopted by world leaders in December 2022 – sets out to halt and reverse nature loss by 2030

-69%
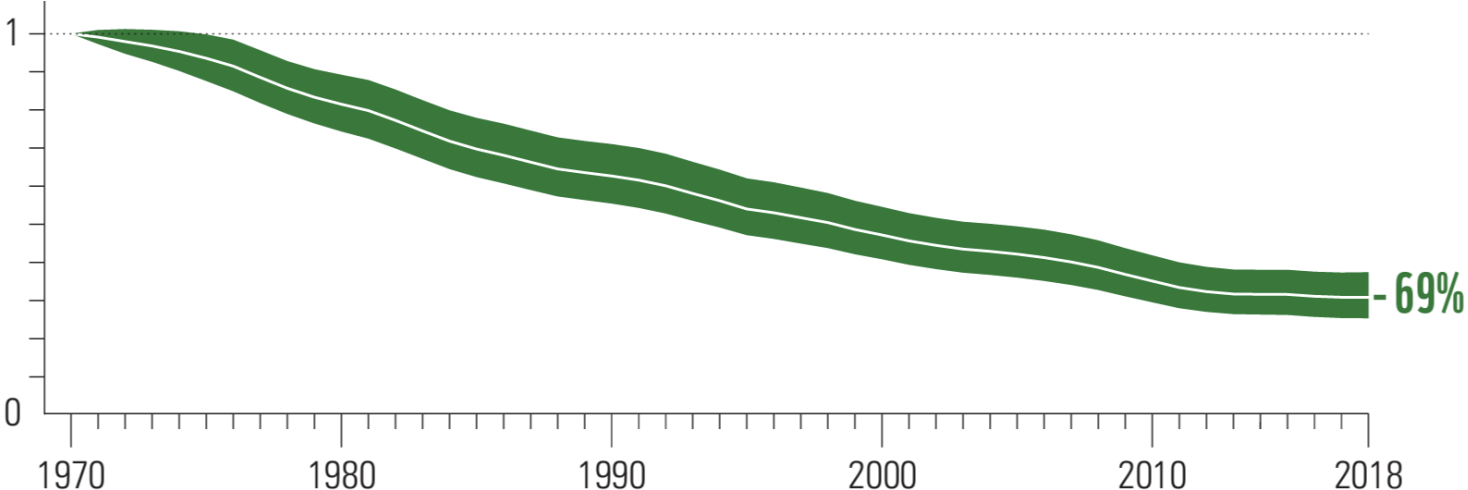
The Living Planet Index (LPI) is constructed by calculating an average trend for tens of thousands of terrestrial, freshwater and marine vertebrate populations from across the globe.

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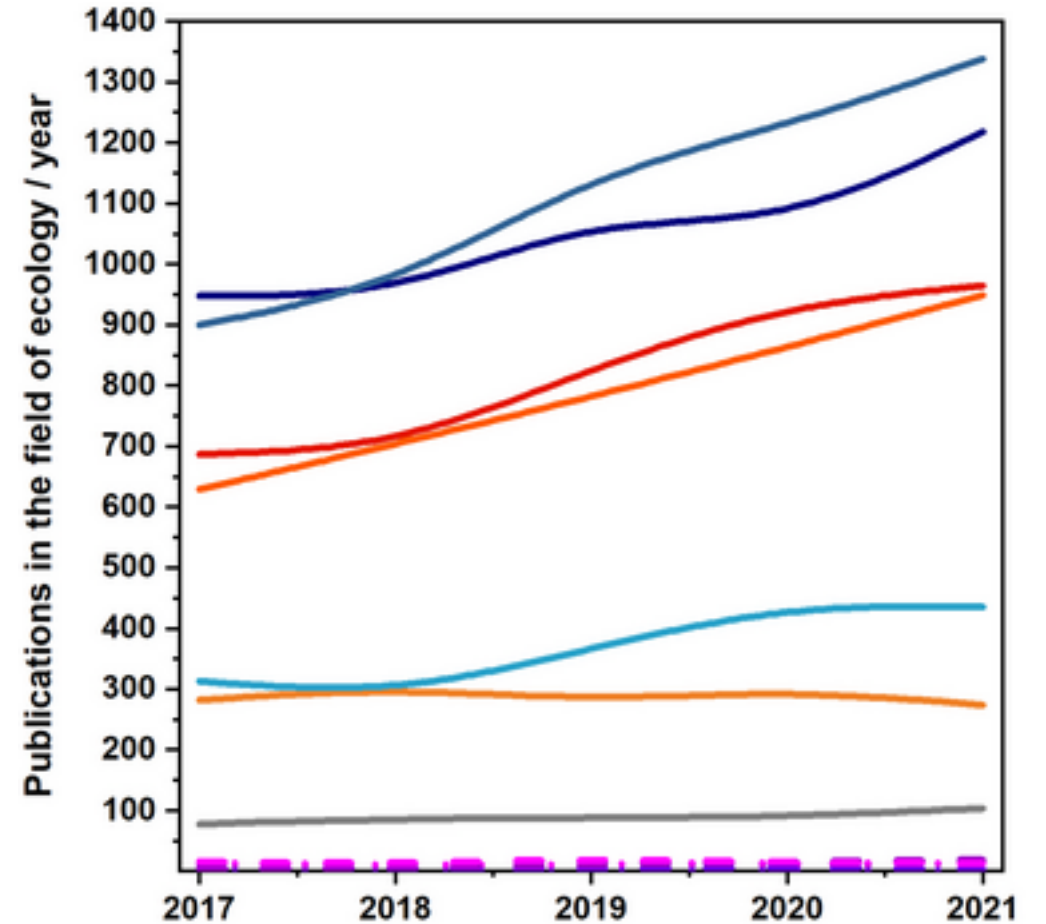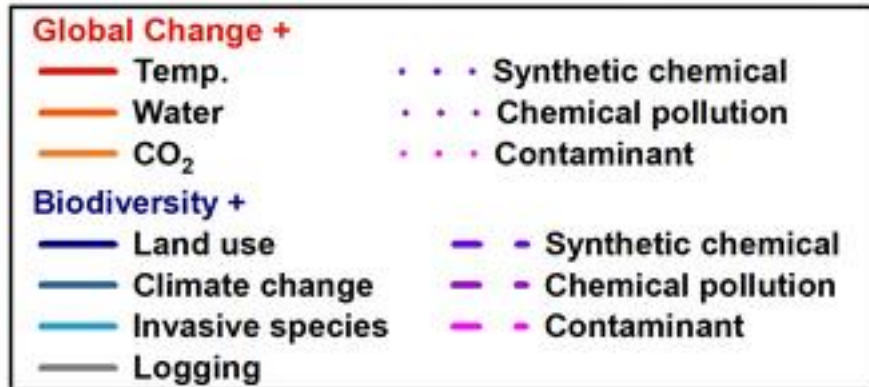# There is a dearth of research on the impact of chemical pollution on biodiversity

The Convention on Biodiversity (CBD) is one of three "COPs" established during the 1992 UN Rio Accords. Last year in Montreal the COP met and agreed to a new set of biodiversity goals for the following decade. There are 23 2030 global targets in the CBD, including one on chemicals

TARGET 7
Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including:

- reducing excess **nutrients** lost to the environment by at least half including through more efficient nutrient cycling and use;
- reducing the overall risk from **pesticides** and **highly hazardous chemicals by at least half** including through integrated pest management, based on science, taking into account food security and livelihoods; and also
- preventing, reducing, and working towards eliminating **plastic pollution**.

An Ad Hoc Technical Expert Group (AHTEG) was formed to draft a monitoring framework and present it for final approval at COP16 (Nov '24). Last month the AHTEG met and decided that they should **"consider additional indicators, under Target 7, to cover highly hazardous chemicals and mercury."**

Recommendations

- *Aim for the overall reduction of chemical production and emissions*
- *Add substance groups of high concern*
- *Consider the full life cycle of chemicals*
- *Set up transparent data inventories*

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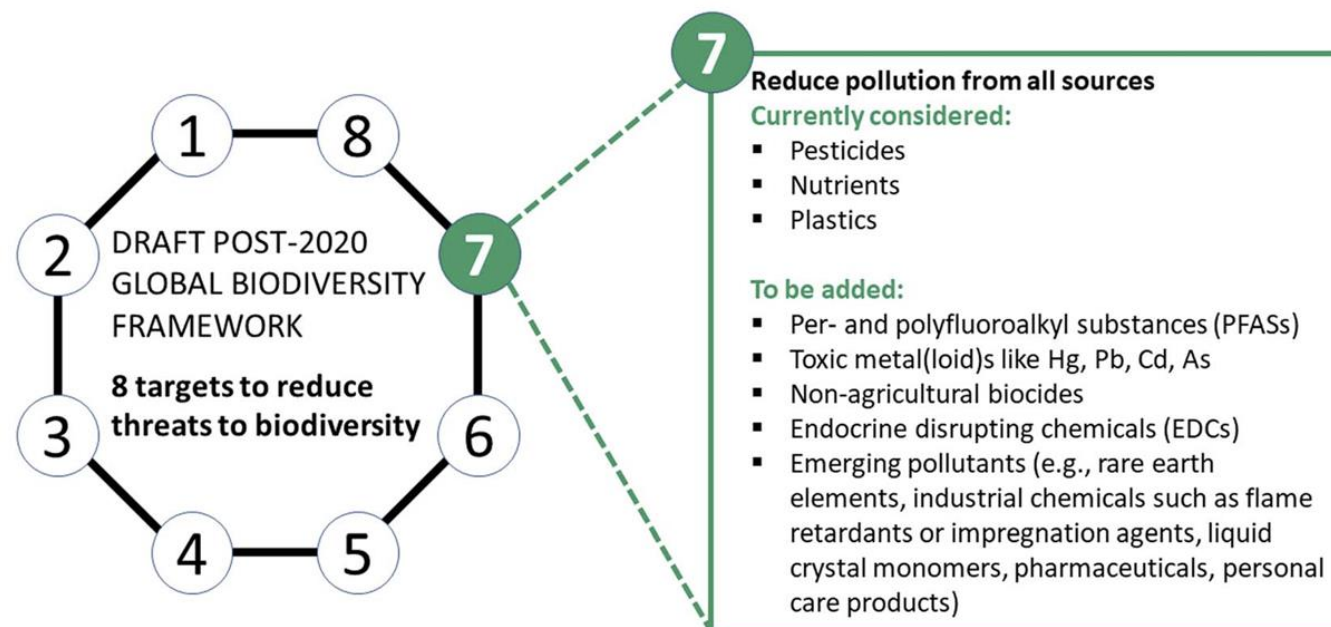## Policy options to account for multiple chemical pollutants threatening biodiversity

Leonie K. Mueller, *a Marlene Ågerstrand, b Thomas Backhaus,c Miriam Diamond, d Walter R. Erdelen,e David Evers,f Ksenia J. Groh, g Martin Scheringer, hi Gabriel Sigmund, j Zhanyun Wang k and Andreas Schäffer *alm

Chemical pollution poses a threat to biodiversity on a global scale. This has been acknowledged in the Post-2020 Global Biodiversity Framework, which proposes to regulate the release of chemicals to the environment and names specific indicators focusing on pesticides, nutrients and plastic waste. We fully welcome the inclusion of these substances but would like to further emphasize that in order to protect biodiversity from hazardous chemicals, the scope of Target 7 should feature a wider range of pollutants that can contribute to biodiversity loss. We propose the inclusion of non-agricultural biocides, per- and polyfluoroalkyl substances (PFASs), toxic metal(loid)s, and endocrine-disrupting chemicals (EDCs). Furthermore, data on emerging pollutants (e.g., rare earth elements, toxic and persistent industrial chemicals, liquid crystal monomers, pharmaceuticals, personal care products) need to be regularly reviewed with the aim to integrate additional pollutants to Target 7 in the case of biodiversity risk. We suggest to amend Target 7 to postulate the aim for the overall reduction of chemical production and emissions, as well as the addition of the aforementioned substance groups of high concern to biodiversity for integration in the Post-2020 Global Biodiversity Framework. We further elaborate on different strategies for the reduction of emissions of hazardous chemicals through chemical simplification and grouping, reduction of chemicals with non-essential use, and innovative synthesis strategies (e.g., "benign-by-design"). In this context, the full life cycle of chemicals (i.e., production, use, and end of life) needs to be considered. Lastly, we propose to set up transparent data inventories, in cooperation with the industry, to inform about the production, transport and emissions of chemicals, which can serve as a basis for indicators related to monitoring the progress towards achieving the goals set under Target 7.

Thank you